

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An electron tube (1)-comprising:  
an envelope (2)-formed with a photocathode (11)-at a predetermined part of an internal surface thereof;  
an insulating tube (9)-having one end and another end, the another end being connected to the envelope (2)-and the one end protruding inside the envelope-(2);  
an electron-bombarded semiconductor device (15)-provided on the one end of the tube (9);  
an alkali source (27)-provided inside the envelope (2)-to generate alkali metal vapor;  
and  
a separating member (21', 23', 26)-disposed between the alkali source (27)-and the tube-(9),  
wherein the semiconductor device (15)-detects photoelectrons emitted from the photocathode (11)-in response to an incident light thereon.

2. (Currently Amended) The electron tube (1)-as claimed in Claim 1, further comprising:  
an inner stem (80)-connected to the one end of the tube (9)-via a conductive member (89); and  
a conductive member (21)-provided on the one end of the tube (9)-and protruding outside the tube (9)-to reduce the field intensity in the vicinity of the one end of the tube-(9),  
wherein the semiconductor device (15)-is disposed on the inner stem-(80).

3. (Currently Amended) The electron tube (1)-as claimed in Claim 1, further comprising a conductive member (23)-provided on the another end of the tube (9)-and protruding outside the tube (9)-to reduce the field intensity in the vicinity of the another end of the tube-(9),

wherein the envelope (2)-further comprises an outer stem (6)-connected to the another end of the tube-(9), at least a part of the outer stem (9)-that is connected to the another end of the tube (9)-being conductive.

4. (Currently Amended) The electron tube (1)-as claimed in ~~any one of Claims 1 to 3~~Claim 1,

wherein the envelope (2)-is applied with a ground potential, and

wherein the semiconductor device (15)-is applied with a positive potential.

5. (Currently Amended) The electron tube (110)-according to claim 1,

wherein the separating member (21', 23', 26)-is either a conductive member (21') provided on the one end of the tube (9)-and protruding outside the tube (9)-to reduce the field intensity in the vicinity of the one end of the tube (9)-or a conductive member (23')-provided on the another end of the tube (9)-and protruding outside the tube (9)-to reduce the field intensity in the vicinity of the another end of the tube-(9).

6. (Currently Amended) The electron tube (110)-as claimed in Claim 1,

wherein the separating member (21', 23', 26)-includes a conductive member (21') provided on the one end of the tube (9)-and protruding outside the tube (9)-to reduce the field intensity in the vicinity of the one end of the tube (9)-and a conductive member (23')

provided on the another end of the tube ~~(9)~~ and protruding outside the tube ~~(9)~~ to reduce the field intensity in the vicinity of the another end of the tube ~~(9)~~.

7. (Currently Amended) The electron tube ~~(110)~~ as claimed in Claim 6,  
wherein the conductive member ~~(21')~~ and conductive member ~~(23')~~ are partially overlapped with each other in the axial direction of the tube ~~(9)~~.

8. (New) The electron tube as claimed in Claim 2,  
wherein the envelope is applied with a ground potential, and  
wherein the semiconductor device is applied with a positive potential.

9. (New) The electron tube as claimed in Claim 3,  
wherein the envelope is applied with a ground potential, and  
wherein the semiconductor device is applied with a positive potential.